ABHISHEK SHARMA

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Skills

- **Programming languages :** Java, JavaScript, C, C++
- **Development frameworks and tools :** React.js, Node.js, Express.js, SQL, MongoDB, Git

Education

- **National Institute of Technology Kurukshetra, India** **Oct'21 – Current**
  Computer Engineering, ***CGPA: 6.8677***
- **Dronacharya public school, Faridabad** **Apr'19 – Apr'20**
  AISSCE (Class XII), Aggregate: 78.6%
- **Dronacharya public school, Faridabad** **Apr'17 – Apr'18**
  AISSCE (Class X), Aggregate: 86.6%

Projects

- **TunePorter: Cross-Platform Playlist Conversion Tool (Link)** **June' 23 - July' 23**
  Developed a YouTube-to-Spotify Playlist Converter, allowing users to convert their YouTube playlists into Spotify playlists with help of APIs to fetch and migrate playlists into Spotify accounts.
  - *Built an interactive frontend using React.js, providing a seamless user experience for playlist migration.*
  - *Engineered a scalable backend using Node.js and Express.js to handle high-volume API requests efficiently.*
  - *Achieved 100% song match accuracy in most cases and ~70% accuracy in edge cases through an optimized song-matching algorithm.*
  - *Integrated* ***OAuth2 authentication*** *for secure playlist access, enhancing data privacy and user trust.*

- **Shortify: URL Shortener Web Application (Link)** **April' 25 - April' 25**
  DevelopedDesigned and developed a URL shortening service using Node.js, Express.js, and EJS for server-side rendering..
  - *Implemented unique short code generation and redirection logic with persistent database mapping.*
  - *Integrated MongoDB Atlas for scalable cloud-based storage of original and shortened URLs.*
  - *Built a responsive frontend using EJS templates, ensuring a smooth user experience across devices.*

Research Work

- **Machine Learning-Driven DDoS Detection & mitigation in Software-Defined Networks** **Feb'23 - May'23**
  Engineered a comprehensive framework for real-time detection and mitigation of DDoS attacks in Software-Defined Networking (SDN) environments, improving network security and reliability.
  - *Implemented and benchmarked multiple machine learning algorithms, including SVM, Random Forest, KNN, and LSTM, achieving up to 97.5% detection accuracy with optimized feature sets.*
  - *Leveraged SDN architecture using Ryu controller for dynamic traffic management and rapid threat response, demonstrating the synergy between SDN and ML for network security.*
  - *Utilized Python with libraries such as scikit-learn and TensorFlow to build and train models on a custom SDN traffic dataset, improving detection speed and reducing false positives.*

Position of Responsibility

- **Colors Mental Health Awareness Club | Graphic Designer** **Jun'22 - Jan'23**
  - Collaborated with cross-functional teams to develop and execute a cohesive brand identity for social media campaigns, driving audience growth and event participation.
  - Utilized A/B testing to optimize graphic designs and messaging, **resulting in a 40% increase in audience interaction** and engagement.